We have been living with this pain: enquiry-based language learning in Iranian higher education

Sue-san Ghahremani-Ghajar a, Hossein Mohammadi Doostdar b & Seyyed-Abdolhamid Mirhosseini c

a Department of English Language and Literature, Alzahra University, Tehran, Iran
b Department of Science Education, National Research Institute for Science Policy, Tehran, Iran
c Department of English Language Education, Tarbiat Modares University, Tehran, Iran

Available online: 01 Sep 2011
demand or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.
We have been living with this pain: enquiry-based language learning in Iranian higher education

Sue-san Ghahremani-Ghajar*, Hossein Mohammadi Doostdarb and Seyyed-Abdolhamid Mirhosseini

Department of English Language and Literature, Alzahra University, Tehran, Iran; 
Department of Science Education, National Research Institute for Science Policy, Tehran, Iran; 
Department of English Language Education, Tarbiat Modares University, Tehran, Iran

(Received 15 August 2010; final version received 5 August 2011)

This article explores an understanding of learning as authentic enquiry and language as a social practice of meaning construction as the theoretical perspectives underlying an educational initiation beyond mainstream tertiary language education. With a general ethnographic approach and relying on multiple data sources, we investigate critical practices of teaching medical English in an Iranian university and illustrate a contextualized instance of enquiry-based language learning that embodies enquiry and discovery in two senses: students’ research and learning about the content for oneself, and moving away from spoon-feeding views of academic language education to experience language in real social contexts. On this basis, we argue for stepping beyond predetermined content-based approaches to university language teaching and call for living the language that is being learned, which involves enquiring, experiencing, discovering, challenging, and owning it.

Keywords: enquiry-based language learning; English for specific purposes; English teaching in Iran; Iranian higher education

Introduction: tertiary language education

Language education, including English language teaching for specific and academic purposes, continues to be a major concern in many higher education institutions around the world (Canado 2010; Fortanet-Gomez and Raisanen 2008; Kirkgoz 2009). Accordingly, specific aspects of higher education language learning and teaching like assessment of English for academic and specific purposes (Douglas 2000); interdisciplinary course design concerns (Mavor and Trayner 2001); and language requirements of students in particular academic disciplines (Bacha 2010; Hwang and Lin 2010) have shaped a wide array of research areas. Such issues have been the concern of researchers from a diversity of contexts from South East Asia to the Middle East, Europe, and Latin America (Bacha 2010; Fortanet-Gomez and Raisanen 2008; Hayati 2008; Hwang and Lin 2010; Kirkgoz 2009; Mazdayasna and Tahririan 2008; Salager-Meyer et al. 1997).

Mainstream approaches to English language education for specific and academic purposes in higher education have traditionally focused on terminology-oriented...
register analysis (Robinson 1980; Strevens 1977); later, upon the so called student-centered approaches and needs analysis (Coffey 1984; Johns 1988); and recently, on genre-based and meta-discourse views (Bhatia 2004; Hyland 1999; Hyon 1996). Common among these various approaches is an instrumentalist vision and a view of language as merely a neutral means of communication.

Even more recent content-based and innovative teaching approaches, although pursuing more contextualized and holistic practices, resort to predetermined contents in order to cultivate mere communicative language ability (Brinton and Master 1997; Lyster 2007; Smith and Strong 2009). Moreover, an underlying commonality among these apparently varying approaches is that language as a set of skills is to be taught as fragmented elements. The difference is mainly in how far this atomistic and controlled approach extends; earlier practices stopped around terminology and grammatical structures and more recent ones go as far as discourse structures that step beyond sentence level. A further common assumption among current approaches to teaching English as a foreign language in specific content areas in higher education seems to be the view that content is ancillary to language. The two are predominantly treated as separate issues and content is just viewed as a vehicle for what is perceived to be language. Nonetheless there have been thriving, though obviously marginalized, attempts at bringing alternative views into the area of tertiary language education. These attempts have been variously discussed under rubrics such as critical English for specific purposes (Benesch 2001); language and nonlanguage learning (Ottewill and Drew 2003); student autonomy and autonomous language learning (Carte 2005; Chan 2003); as well as problem-based and enquiry-based English for specific purposes teaching (Wilkinson 2008) which is of particular relevance to this article.

**English language teaching in Iranian universities**

Within the Iranian context of higher education the overall trend of university English language education is strongly following the mainstream global current (Hayati 2008; Kiany and Khayyamdar 2005; Mazdayasna and Tahririan 2008). The emerging alternative views which are struggling to be recognized in the global arena are even more sidelined in Iran except for a few endeavors limited in number and scope (Ghahremani-Ghajar, Mirhosseini, and Fattahi 2009; Ghahremani-Ghajar and Sheykhan 2009). Hayati (2008), in his account of problems in teaching English for special purposes, illustrates an image of English language classes in Iranian universities:

...the classes are teacher-centered, with the exception of students being required to read a few lines from the booklet, one by one, offering the meaning of the words if they are asked. Most of the teachers are busy translating the texts ...while the students are busily writing down the translations offered by the teacher ...Accordingly, the tri-partite problem of ESP [English for Specific Purposes] programs in Iranian universities most often concerns the teacher, the time, and the textbooks. (154)

Therefore, classroom practices of teaching and learning English for specific and academic purposes, which strongly rely on textbooks published by The Organization for Researching and Compiling University Textbooks in Humanities (e.g. Tahririan
and Mehrabi 1993), are strictly confined to distorted versions of bilingual vocabulary memorization and the reading of specialized texts imposed by the textbooks which suffer from serious problems (Zangani 2009).

In almost all mainstream practices of higher education English language education in content areas in Iranian universities, which probably represent a predominant trend in many other educational settings around the world, a major consideration that seems to be ignored is that beyond linguistic elements and even beyond more inclusive discursive constructs, language is a crucially social practice necessarily constructed in its socio-contextual atmosphere. Therefore, on the other hand, it is also largely ignored that language, in its true contextual sense, is too complex a phenomenon to be controllably taught as fragmented components and skills.

With such a view of language as a complex and contextually situated social practice of meaning creation, English as a foreign language education, including tertiary level English teaching for specific and academic purposes could be founded on experiencing and challenging language in real social contexts (Norton and Toohey 2004; Pennycook 1994, 1999). Moreover, based on similar theoretical understandings, learning may be viewed as the complex process of experiencing and experimenting with real life situations and challenging them through restless and personally engaging enquiry (Fasheh 2003; Goldman 2010). Though rarely represented in Iranian universities, these conceptions are the foundational points of departure in our explorations of possibilities for moving beyond mainstream de-contextualized and instrumentalist conceptions of English language teaching and learning in Iranian higher education.

**Enquiry-based (language) learning in higher education**

Enquiry-based learning is a broad teaching and learning approach that has emerged from the variety of interpretations and practices rooted in early problem-based learning originally proposed in medical education (Barrows and Tamblyn 1980). The overall distinctive feature of enquiry-based learning is that problems drive teaching and learning processes and there is a considerable amount of student contribution in learning practices (Evenson and Hmelo 2000; Ladyshewsky and Edwards 1999). More specifically, in Deignan’s (2009, 13) words, enquiry-based learning ‘approaches typically involve engagement with a complex problem or scenario in which the students are able to direct both the lines of enquiry and to choose the methods employed’.

Enquiry-based learning has been broadly posited as an overall approach and perspective that may inform all aspects of higher education (Deignan 2009; Goodnough 2006) and even generally, by some accounts, learning has been viewed as enquiry (Goldman et al. 2010). The diversity of teaching and learning approaches, perspectives, and practices generally subscribing to the umbrella term of enquiry-based learning and more broadly to problem-based education (de Graaff and Kolmos 2003) is observable in the diversity of discussions and studies on enquiry-based learning that extend from medical education (Barrows and Tamblyn 1980; Gilkison 2004) to technology-supported learning (Verbaan 2008) and language education (Wilkinson 2008).
In tertiary language education throughout the world, and in the specific context of Iranian higher education, enquiry-based language learning is obviously not a popular theoretical and practical orientation. However, there are unsystematic attempts at bringing enquiry into higher education language teaching for specific and academic purposes based on general educational perspectives of enquiry-based learning (Carte 2005; Chan 2003; Wilkinson 2008). Although not strictly adhering to specifically delineated enquiry-based procedures, and surely not to views that argue for predetermined and measurable learning outcomes (Mantzoukas 2007; Thomas 1997), the educational practices explored in this study are broadly informed by enquiry-based language learning perspectives.

The study: context and methodology
This study is based on an ethnographic research approach shaped by naturalistic in situ, holistic, and *emic* explorations and understandings of the whole phenomenon under investigation in its authentic context and based on the multiple perspectives of all participants (LeCompte and Preissle 1993). The study explores critical enquiry-based views that were adopted when we started our ‘challenge to bring about transformations in the institutionally ossified practices of English language education at Tehran University of Medical Sciences’ (Mirhosseini 2007, 108) in September 2002 with an initial student population of only 20 freshmen gradually extending to English courses in the entire Faculty of Medicine. The courses we dealt with involved Pre-University I and II, General English, and Medical English I and II. The initiation was obviously an attempt to swim against the currently predominant practice of these courses throughout the country, which mainly comprises extracting words and expressions and discussing grammatical structures through reading controlled texts, followed by answering reading comprehension questions (Hayati 2008).

With ‘critical language education’ (Norton and Toohey 2004; Pennycook 1999) and ‘teaching for understanding’ (Wiske 1998) as our theoretical standpoints, during the first four years from 2002 to 2006 at Tehran University of Medical Sciences we attempted to move away from the current trends of teaching medical English. Our major practices during these four years in various courses included critical reading of medical and general texts; hospital observations and class dialogs about them; writing student research papers; and end-of-the-term poster presentations, panel discussion dialogs, and workshops. These practices culminated into an enquiry-based syllabus for the course of Medical English II during the two semesters of the academic year 2006–2007. The research issue that we specifically deal with in this article is the nature of possibilities created as well as challenges faced by enquiry-based language learning within the particular university of our concern as a high profile representative of the Iranian higher education.

The practices we illustrate here emerged from the work of more than 120 third-term medical students in six ESP II classes, each with about 20 students. Three classes were held in Autumn semester 2006 and three in Spring semester 2007. Students had passed the courses of General English and Medical English I in their previous terms. The bulk of data investigated is the outcome of more than 200 hours of participant observation during two academic semesters, hundreds of pages of
student weekly writings, more than 100 student end-of-the-term learning-journey presentations, and hours of peer researcher discussions.

Reflecting on previous terms, we focused on pursuing an enquiry-based approach but, understanding that a research process based on current content-based approaches would suffer from a pre-deterministic view of content only as a means through which language can be processed (Lyster 2007), we started to think about medical content beyond just reviewing a set of prescribed texts and to envisage student research as more lifelike and real than going through a series of prescribed procedures heavily relying on pre-determined textual sources. Moreover, our own engagement with academic research as well as students’ previous term quasi-research practices had taught us that perhaps the major flaw in what has been known as research in almost all academic areas, including medicine, is that academic research does not frequently happen as personally engaging enquiry in search of real learning inspired by a real concern truly felt by the researcher.

Within the overall framework of enquiry and classroom engagements, illustrated in detail in the next section, the point of departure for the students was a real medical problem selected by the students as their research pain. They wrote and emailed weekly accounts of their enquiry (in English) to the teacher and the teacher read their writings and commented on them in later class discussions. He also commented on the linguistic aspects of their writings and class discussions and raised their awareness with regard to critical reading, dealing with technical medical terminology, and grammar. Class sessions usually started with student presentations about their enquiry progress and went on with peer and teacher comments, questions, and challenges in whole class or small group dialogs.

Every other week throughout the term, students watched part of a movie called Lorenzo’s Oil (Miller 1992) (in English) depicting the true story of a little boy, called Lorenzo, with a rare fatal disease with doctors having given up on him. Therefore, the boy’s parents started their search about the disease as their major life issue rather than an academic interest without any prior academic knowledge of medicine. The force of their real deep pain led them to developing a kind of drug which almost stopped the progress of the disease. The impressive story was an example of a real enquiry of the type that students could follow and, therefore, it was to inspire and give ideas for their own enquiry process.

Discussion

We have been living with this pain

The term started with students’ decision on a medical issue of true personal significance that we called pain. As beginners in medicine, students were not expected to have much information about their pain as a medical issue but most of them were personally concerned with and, therefore, eager to know about it. For the first two weeks they wrote about their pains, discussed them in class dialogs or group discussions, and exchanged comments on the medical aspects as well as on the language of their writings and dialogs. The examples below, excerpted from students’ writings, are examples of the diverse medical issues reflected in their pains:
In this research I am going to find something... about sciatica pain. The main reason for choosing this topic is my mother... We have been living with this pain for nearly ten years... I hope that I can do something useful for my mother to decrease her pain as much as possible.

... my mom... had cancer some years before, and now she is suffering from the side effect... the most common therapy for it is to do the surgery... not to let it return after the surgery they do radiotherapy. However, it has some side effects, which may appear 10-12 years later ...

The students as newcomers to the world of medicine were not expected to be highly knowledgeable about different aspects of their medical concerns in an academic sense. However, because most of them intimately felt their own pains, they started to become deeply involved with their enquiry process. During the first two weeks after the introductory session, students were busy reflecting and writing on their pains and discussed the medical as well as linguistic aspects of their activities in whole class as well as small group discussions. The following are other examples of pains as a starting point of a student enquiry:

I choose epilepsy as my topic for it is my brother’s disease. I think that it is really my pain... i as a sister and as a member of family suffer a lot when i see his seizures...

Students pains not only included bodily medical problems but also mental, psychological, and even socially rooted problems. The following moving student notes about a psychiatric problem and a concern in the area of social medicine, as well as the third excerpt below, written by a foreign student, are obvious examples of intimately felt pains:

I decided to work on ‘Anxiety’... I prefer to choose social phobias, because all my life I’ve been suffering this monster ...

Addiction: I’ve chosen this topic because... One of my close relatives... is Addicted to Heroin... I am thinking about doing a research about the ways of fighting the whole drug system.

The Diseases Resulting Living In Other Countries: The topic manages the health problems caused by the changes in conditional environment... Since arriving to iran foreigner students faced and suffered such diseases...

The interesting piece of student writing that follows is a student’s expression of current practices and procedures of medical education as his/her pain. Not addressing a specific disease or medical problem as such, this particular concern focuses on the very system and methods of medical education as a pain and illustrates the fact that pains that may initiate a truly felt enquiry may well move beyond any predetermined and dictated set of problems and specified research questions:

I think there should be some other methods of learning these theoretical aspects ... I want to focus on learning the basic science of medicine and discover and recover the methods...

As illustrated by these examples of students’ written accounts of their pains at the beginning of the semester, the pain could be about a complicated disease like cancer or epilepsy; a psychological or socio-medical problem like anxiety or drug addiction; or challenges like health issues resulting from living in another country or even
medical education itself. The truly felt pains could provide a context which involved students in their enquiry as part of a personal concern rather than as an academically assigned homework. Moreover, as illustrated through sample language discoveries later in this article, learning medical terminology and formal aspects of language as part of this process of trying to heal a real pain would be very meaningful and would lead to discoveries that truly reflect the essentials of language.

I found some new ‘Who’s’

Research questions, methods, and even findings in many instances of academic research appear to be detached from real human contexts and are mostly confined to academic areas. Academic medical research usually needs to go a far way before it can reach and improve lives of real patients outside experimental situations and in their real contexts of life. Therefore, to put their re-search in a meaningful human context, for the next three weeks students focused on their whos, that is, people who could, one way or another, contribute to understanding the pain. In the following quotes, students talk about people who suffer from particular pains and their look at the patients is obviously different from the normal medical gaze that views patients as research cases:

My mother: talking, Bringing out the medical history, checking her drugs and... I also should appreciate Dr. Mohammadizadeh cooperation... (..my medical who)

Last week we went to Rasoul hospital in the continuity of our job... We visited two patients... I have integrated the information acquired from these patients with...

Outside the confinement of textbooks and classrooms, students found huge resources. As student writings show, who could be a patient, a family member of a patient, a doctor, a classmate, or a university professor, among many others. In the student writing samples below, one student writes about her mother, another student writes about his doctor, and the who of other students included a cancer specialist and senior medical students:

My mom talks... Ok let us go back. When was it?

In the week passed, I visited my doctor. I asked her about one hypothesis that I thought can be the reason of my acne... but she said that your case is not in that way.

I talked to a specialist about the different treatments that exist for different types of breast cancer...

This week I talked to some of the interns I thought would be helpful a lot... however as it seems... there are many things not found in this issue... I found talking to people on the internet helpful.

I found some new ‘Who’s... Some of the students in the university who did researches about Sociophobia... and Psychology professors in the university...

I have read a lot

For the next five weeks students consulted medical textual resources including reference books, journal articles, as well as their university textbooks and also
searched the internet. They read texts and tried to web the information they found with their previous knowledge about their pain and who to make meaningful inferences about their specific pain. The sample student writings during the second half of the semester that are presented below illustrate some of the texts they consulted:

I’ve read a lot of articles during our research about distinct subjects in the scope of our field... Carbamazepine is my subject... Katzung, 2005, Goodman & Gillman, 2006, Rang, Dale, Ritter, & Moore, 2005. And here is... my conclusion of these three textbooks about Carbamazepine...

Articles are taken from: a. Dr. Andrew Weil’s Self Healing, Andrew Weil, MD, director of the Program in Integrative Medicine at the University of Arizona in Tucson... b. Content Knowledge: A Compendium of Standards and Benchmarks for K-12 Education...


Considering the perspectives that students had gained in their previous terms about critical reading of general and medical texts and also considering the ongoing challenges in classroom talks, an important aspect of readings was to read between the lines in addition to the surface meaning of texts:

... but after finding a good article which was wrote by doctor Andrew Weil I understood these ways are not separated from each other... In other side... in a book which I chose the writer was trying to...

The diversity and contextual nature of the reading sources exemplified in these writings is a major point of divergence between our practices and content-based approaches in which content is predetermined and/or employed only to provide a space for presenting formal/functional properties of language, without the content itself having a major challenge or learning significance:

I have found two articles... 1. H pylori and cag A:relationships with gastric cancer...

2. Helico bacter pylori infection and the development of gastric cancer... In these articles I found new answers to my questions. The main reason of these disorders is H pylori...

Article: Causes and prevention of Calcium-containing Renal Calculi... Presented at the Plenary Session, Western Association of Physicians, Carmel, California, February 6, 1991. New Discoveries: Natural inhibitors and promoters of crystal and stone formation exist in the urine. Inhibition may occur at the level of crystal nucleation or growth...

Beautiful ways of expressing
Throughout the process students wrote weekly accounts of their enquiry and discussed them in class dialogs (in English) or their small group discussions. In writing about and discussing pains; finding, observing, and talking to whos; searching, reading, and writing about words; watching and discussing the movie;
as well as in whole-class and small circle dialogs, students focused on various formal and linguistic aspects of the language of their research and were challenged through their language discoveries. Their discoveries included several aspects of language: academic as well as and nonacademic, spoken as well as written; and within the lines as well as between the lines and behind the words. As exemplified in the following excerpts from students’ writings, these discoveries at one level included lexical items and medical terminology:

Dyscrasias: a morbid general state resulting from the presence of abnormal material in the blood, usually applied to disease affecting blood cells or platelets.

electromyography: electro + myo + graphy. now the meaning is very clear...

HSC: hematopoietic stem cell

Moreover, the discoveries also included general words and expressions, grammatical structures, discursive subtleties; beautiful/ugly ways of saying things, delicate underlying meanings of the language of medicine, and general issues related to structuring and organizing texts:

Harm or heal:…using these special two words together that have same tone of pronunciations make it possible to understand their meanings…Creating this complex is like an art.

I faced 2 beautiful ways of expressing the intensity of hemorrhages: ‘dot hemorrhage’ used for tiny bleedings, and ‘flame-shaped hemorrhage’ for extensive hemorrhages.

…‘is often associated with…’: shows coming with and help or increase the effect of special problem but in a beautiful way.

…‘there exists great potential for genetic correction of the thalassemia’ instead of ‘great potential for genetic correction of the thalassemia exists’…

In these articles I found these points: when you want to write an essay you should pay attention to its structure…

An interesting instance of reading between-the-line language discoveries and grappling with the politics of academic language occurred when one of the students referred to her mother as my case. After classroom challenges during the semester about the underlying meanings of words and the loaded nature of language, in his later accounts of his process of enquiry he referred to his mother as my MOTHER:

I checked different causes and their symptoms with my case…

…I found some simple exercises for my MOTHER.

Another instance of exploring the underlying meaning of words was raised when discussing a scene of the Movie when Lorenzo was making trouble at school. A school teacher was referred to the boy as hyperactive. Students extensively discussed the meaning of this term, its structure, and its negative labeling implications that irritated the mother. The following piece of student writing is yet another example of exploring delicacies and hidden corners of language:
In the other part we can see a brief speak about usage of anabolic steroids… in fact they want to say you can use without problem about this! But why? I say because… they cleverly use anywhere they can for advertise even in medical texts!

The language learning experience illustrated by these examples is the major achievement and learning outcome of the enquiry-based learning depicted in this article. It is characterized by three major features that distinguish them from mainstream language learning: the linguistic micro elements are learned in a fully natural context of medical English with real medically and personally meaningful struggle with content rather than in dealing with de-contextualized static language samples; the language points that are learned are multilayered and may help students become involved with language in its full capacity rather than at mere semantic or pragmatic word and structure level; and finally, language and its components are discovered by learners rather than spoon-fed to them.

Conclusion

While mainstream views of higher education English language teaching for specific and academic purposes represent English as a neutral means of communication, counter arguments, viewing English as a necessarily socio-contextual practice of meaning creation have been emerging for the past two decades (Fairclough 1989; Norton and Toohey 2004; Pennycook 1994, 2010). This article has been aimed at illustrating a lived experience of how language teaching in content areas can burst the bounds of the so called formal/functional approaches to language and to view it as a necessarily contextual phenomenon and as a socially embedded practice of creating meanings (Pennycook 1994), at the same time that learners struggle with surface level formal, semantic, and pragmatic challenges of a foreign language.

With a view of language as ‘a practice that constructs, and is constructed by the way language learners understand themselves, their social surroundings, their histories, and their possibilities’ (Norton and Toohey 2004, 1) rather than mere communication; education as an enquiry-driven process (Evenson and Hmelo 2000) of ‘learning through practice, reflection, conversation, collaboration, courage, and commitment how to be human’ (Leggo 2004, 30) rather than mere schooling, and research as honest enquiry ‘searching for truth or seeking answers to burning questions and passions’ (Fasheh 2003, 3) rather than merely going through a series of prescribed academic procedures, a rich and challenging practice of tertiary English teaching and learning in content areas has emerged that may create transformative possibilities, inspiration, and hope for our context and probably for other language education contexts. The approach would provide possibilities for questioning traditional assumptions regarding teaching language in content areas and for pursuing learning opportunities on the basis of a transformed set of premises about English language education in content areas: language is a practice of meaning creation; language is to be viewed as holistic, complex, and contextual; and language and content are not fragmentable.

Such a transformation, however, is not as easy and smooth as it may appear and it has its own problems, challenges, and even fights. The major challenges we have been living through in the process of pursuing this approach include student expectations and preconceptions about language learning as a neatly delineated
process of absorbing the knowledge of vocabulary, grammar, and communication; lack of strong self initiation and lack of desire to face uncertainty on the part of students as a result of their schooling years; institutional assessment procedures; and meager administrative coordination and cooperation.

Despite challenges, however, attempting to create an atmosphere for restless and personally meaningful enquiry and discovering and constructing language rather than teaching it, coupled with putting language discoveries into a process of healing a real pain rather than researching an academic interest, could create a meaningful challenge. Such a challenge is definitely worthwhile for broadening the diversity of involvements with education as real enquiry for gaining internal strength (Fasheh 2000), and deepening understandings of language, in Bakhtin’s (1981, 251) words, as a necessarily chronotopic ‘treasure house of images’.

Acknowledgements
The authors would like to thank Alzahra University for funding the study reported in this article.

References


